

**DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
REQUEST FOR PROPOSALS TO PROVIDE PROFESSIONAL SERVICES
FOR COASTAL DRAINAGE ENGINEERING**

Contract No. NAT12002-COASTDRAIN

**Date of Advertisement: MAY 14th, 2012
Deadline for Receipt of Proposals: JUNE 11TH, 2012, 4:00 PM**

The State of Delaware, Department of Natural Resources and Environmental Control (DNREC), seeks coastal drainage engineering services and this Request for Proposals (RFP) is issued pursuant to 29 *Del. C.* §§ 6981.

Project Description

The selected firm(s) will conduct a comprehensive drainage study of each of the Bay Beach Communities to identify both major flooding concerns and more common “nuisance” drainage concerns. This will include an evaluation of drainage complaints to public agencies, any emergency flood response reports, review of drainage or flooding problems of concern identified by area residents and landowners at public workshops, mapping of the existing drainage infrastructure, and field reconnaissance and review of the existing detailed topographic LiDAR data. DNREC reserves the right to amend and/or reissue this RFP, and to award contracts to one or more firms as determined to be in the best interest of the State.

The Engineering Consulting firm should be familiar with relevant laws, codes, approvals, permits, and regulatory requirements of Federal, State, and local agencies. The consultant(s) selected will work under the direction of DNREC.

Project Goals

The State of Delaware includes more than 30 miles of land adjacent to the Delaware Bay, including in which is more than 11 miles of bay beach communities. The goal of this project is to conduct a comprehensive study of the Delaware Bay coast’s exposure to drainage and flooding events. The selected firm(s) will be responsible for engineering analysis of hydrology and hydraulics of coastal drainage and flooding, as selected by DNREC.

The project will include, and the engineering consulting firm should have experience with:

- Holding of public meetings to obtain public input of Drainage/Flooding issues, including sources such as municipal leaders in incorporated communities, Kent and Sussex County government, local conservation districts, DNREC, and DelDOT
- Review of existing drainage network mapping and topography, to be compiled with public inputs to identify and compile a comprehensive list of drainage and flooding problem areas
- ArcGIS Mapping of compiled data
- Ranking & Prioritizing drainage/flooding problems based off of factors including public safety, economic, technical, environmental, ecological, order of severity, frequency of flooding, and the potential impact of sea level rise
- Hydrology & Hydraulics including the impacts of tidal fluctuations
- Field reconnaissance and identification of drainage problems
- Development of recommendations for improvements of identified drainage/flooding areas

- Conceptual design of proposed improvements

Submittal & Selection Process

Interested firms shall submit eight (8) copies of their proposal on or before 4:00 p.m. on Monday the 11th of June, 2012 to Stephen Wright PE, Division Engineer, DNREC Division of Watershed Stewardship, 89 Kings Highway, Dover, DE 19901. Applicant bears the risk of timely delivery. Any proposals received after the stated time will be returned unopened.

Responses shall include the following information that will be utilized by the selection committee to determine qualifications and rankings:

1. Experience and Reputation
2. Expertise for This Type of Project
3. Capacity to Meet Requirements of the Contract
4. Demonstrated Ability
5. Familiarity With Like Projects
6. Questions of Interest

For specific information regarding selection process evaluation criteria, refer to the “Coastal Drainage Engineering Services Evaluation Form” at the end of this RFP. The submitted proposals shall be concise, not to exceed 20 pages, 8.5” x 11”, printed on one side (10 pages double sided). The minimum font size shall be 10 point. The 20-page limit does not include the cover page. Facsimile or electronic submittals will not be accepted.

Each response shall be ranked by committee based on the evaluation criteria (refer to “Coastal Drainage Engineering Services Evaluation Form”). The list of qualified candidates will then be narrowed to the highest-ranking firms based on the scoring results. The top-ranked firms will be interviewed individually, after which a final ranking will be made based on the interview. Selected firms will be given notice of times and dates for scheduled interviews. Negotiations will begin with the firm having the highest final ranking and will proceed until a selection or selections are made. All respondents will receive notice of contract award. The selection of the firms(s) will be made in accordance with 29 Del. C., Chapter 69, State Procurement Professional Services process.

Respondents are reminded that it shall be the responsibility of the Engineering Consulting firm to be current with any professional registration or certification as required by Delaware law. The Professional Engineer for this work must have related experience in coastal drainage engineering and must be registered in the State of Delaware.

Contract Agreement Form

The firm(s) awarded the contract will be required to enter into a Professional Services Contract with DNREC (standard Professional Services Contract available upon request).

Scope of Services

The Consultant’s responsibilities will be to conduct a comprehensive drainage study of each of the Bay Beach Communities to identify both major flooding events and more common “nuisance” flooding events. This will include an evaluation of drainage complaints to public agencies, any emergency flood response reports, review of drainage or flooding problems of

concern identified by area residents and landowners at public workshops held by the Department of Natural Resources and Environmental Control (DNREC), mapping of the existing drainage infrastructure, and field reconnaissance and review of the existing detailed topographic LiDAR data.

1. Obtain Public Input on Drainage/Flooding Issues

Review and analyze information provided by landowners and residents most familiar with the area's drainage and flooding issues during a workshop organized and facilitated by the DNREC. Previously documented drainage concerns should also be reviewed and considered as part of this item. Agencies to be contacted should at a minimum include:

- Municipal Leaders if the community is incorporated
- Kent or Sussex County Government
- Local Conservation District
- DNREC
- DelDOT

2. Review existing drainage network mapping and topography data.

This effort will collect, compile and map additional data to assist in the field reconnaissance and evaluation of the drainage problems identified through the drainage complaints and public input. Existing data includes detailed topographic LiDAR data. As it becomes available mobile LIDAR data will be provided by DNREC from the economic study of bay beach communities. All existing drainage infrastructure, including stormwater and sewage, should be collected and mapped. Tidal data may also need to be obtained from established gage stations and if necessary temporary gage stations may need to be installed and monitored.

3. Inventory areas with routine drainage or flooding complaints.

Based on review of existing complaints, community identification of problem areas, and review of existing data, develop a comprehensive list of drainage or flooding problem areas and their locations. All locations should also be mapped in an Arc GIS compatible format.

4. Rank/Prioritize Drainage Problems

Using criteria provided by DNREC and the project's steering committee develop ranking criteria that incorporates factors such as public safety, economic (agricultural), technical, environmental, ecological, order of severity, frequency of flooding, and the potential impact of sea level rise.

5. Conduct Field Reconnaissance

Based on the inventory of drainage problems, conduct site visits and collect field data that describes the nature of identified drainage and flooding problems and likely causative factors.

6. Develop recommendations for improvements.

Develop a set of recommendations for the potential improvement of drainage and flooding problems such as cleaning of ditches, redirection of surface flows, enlargement of wetland areas, resizing or removing drainage pipes, addition of tidegates, and other potential solutions applicable to various site specific drainage problems. Recommendations for improvements

must include consideration for the increased inundation to be experienced with continuing sea level rise and a preliminary cost benefit analysis based on a conceptual cost estimate. DNREC sea level rise projections will be provided.

7. Develop conceptual designs of proposed improvements.

Design specific descriptions and/or conceptual designs of high priority drainage problems with cost estimates. For structural improvements, these should be detailed enough to provide information needed to begin preconstruction and engineering design work. A specific geographic location, extent of remedy, and calculations on the expected reduction of flood/stormwater volume, time of concentration of flows, and any long term maintenance requirements to ensure effectiveness shall be provided for all proposed improvements. Consideration for increased inundation from sea level rise must be included in development of conceptual designs.

8. Deliverables

A detailed drainage and flooding report that includes a description of the study area, the completed inventory of drainage problem areas with maps, the findings of the reviews and field reconnaissance of these areas, the prioritization of the drainage problems and its justification, the description of recommendations for improvements, and the more detailed conceptual designs for the highest priority problems. The report and maps will be delivered in digital format. A spread sheet of all identified drainage problems and attribute data and base map data layers will also be delivered in digital format.

Licenses & Insurance

The firm(s) awarded the contract will be required to submit copies of the following:

- Applicable Professional Licenses (State of Delaware)
- Delaware Certificate of Authorization
- Current Certificate of Insurance
- Current Delaware Business License

COASTAL DRAINAGE ENGINEERING SERVICES EVALUATION FORM

PROJECT NAME: COASTAL DRAINAGE ENGINEERING SERVICES

PROJECT NUMBER: NAT12002-COASTDRAIN

FIRM: _____

RATER: _____

EVALUATION CRITERIA

1. Experience and Reputation

0-10 points

History of organization, general background, experience, reputation and years in business

0-10 points _____

2. Expertise for This Type of Project

0-20 points

Overall technical expertise for providing drainage engineering services
Please include at least three (3) references

0-20 points _____

Project organization, staffing and use of subcontractors

0-10 points _____

3. Capacity to Meet Requirements of the Contract

0-20 points

Project team employees' specific experience

0-5 points _____

Ability to complete projects on time and within budget

0-5 points _____

Financial stability of firm (net worth) and most recent audited financial statement

0-5 points _____

Appropriate professional registration

0-5 points _____

4. Demonstrated Ability

0-80 points

Design experience in hydrology and hydraulics with an emphasis in tidal interaction with drainage and flooding from storm events

0-40 points _____

Capacity to hold public meetings to gain additional data from land land owners and government agencies to be included in mapping

0-20 points _____

ArcGIS inundation mapping of flooding areas

0-20 points _____

5. Familiarity With Like Projects

0-20 points

Delaware projects successfully completed

0-10 points _____

Other State projects successfully completed

0-5 points _____

Federal and other projects successfully completed

0-5 points _____

6. Questions of Interest

Contractors should address the following questions:

a. Are there any civil judgments and/or criminal history of the proposing contractor's or subcontractor's principals? _____

b. Has firm ever been debarred or suspended by any governmental agency? _____

c. Has firm ever had any revocation or suspension of a license? _____

d. Has firm ever been engaged in any bankruptcy filings or proceedings? _____

e. Is firm a minority or certified woman-owned business? _____

f. Is this firm a veteran-owned business? _____

TOTAL SCORE (MAXIMUM POSSIBLE 150): _____